Biophysics Division Sloane Physics Laboratory Yale University New Haven, Conn. March 30, 1951

Dr. Joshua Lederberg Department of Genetics University of Wisconsin Madison, Wisconsin

Dear Dr. Lederberg:

This June, I shall receive a Ph.D. in Biophysics from Yale University for work done under the direction of Dr. E.C. Pollard. I am currently making arrangements for the coming year. Dr. Burkholder has suggested that your laboratory would be an excellent place to continue my research, and upon his advice I am taking the liberty of writing to you.

My main generalized scientific interest is "the physics of the bacterial cell", by which I mean the analysis of cellular phenomenon as far as possible in terms of physical theory. I realize that at the present state of our knowledge one cannot make committments as to how far such analysis can be made. However, I feel that a sincere effort in this direction, both experimental and theoretical should be undertaken.

I am enclosing a resume of my education and experience in the field of biophysics. My thesis problem has dealt with the analysis of B. subtilis spores by means of radiation. For this purpose I have obtained ultra violet absorption, lethal action, and mutation (from wild type to the general class biochemical deficient) spectra. I have also obtained dose survival data for deuterons (with variation of ionization density), x-rays, and soft x-rays (1000 volts).

There are several possible research projects which I have considered working on in the coming year, although I have an open mind in this respect with regards to the interests of the group I will work with. One possibility is obtaining mutation spectra for single loci using a sexual orhanism. Another suggestion is the study of an in vivo enzyme system using luminescent bacteria and ultra violet radiation.

I would like to know if there is a possibility of working in your laboratory for the coming year, either with a staff appointment or as a post doctoral fellow. I have recently found out that it is rather late to apply for a fellowship, however, I shall make an effort to obtain one, if you feel that there is an opening in your laboratory in this capacity.

I would like to thank you for giving this matter your attention.

Sincerely,
Harold J. Morowitz

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